| | Application No. | Applicant(s) |  |
|---|---|---|---|
| ***Notice of Allowability*** | 09/444,488 | VANTALON ET AL. | |
| | Examiner | Art Unit | |
| | James Sheleheda | 2614 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--*

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *09/07/04*.

2. ☒ The allowed claim(s) is/are *1-18,33,35,36 and 38-42*.

3. ☐ The drawings filed on _____ are accepted by the Examiner.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some*   c)☐ None  of the:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☒ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date *05/07/04*.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☐ Examiner's Amendment/Comment

8. ☐ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

## DETAILED ACTION

### *Allowable Subject Matter*

1.      The following is a statement of reasons for the indication of allowable subject

matter:

Claims 1-7 are allowable because the prior art fails to teach or disclose a method

for enabling a conditional access module to handle any of a plurality of data transport

streams, comprising: qualifying received data bytes according to their positions and

values within a data packet; and *attaching a multi-bit tag to each received data byte,*

such tag containing information required for further processing of the byte.

Claims 8-16 are allowable because the prior art fails to teach or disclose a

system for enabling a conditional access module to handle any of a plurality of data

transport streams, comprising: a qualification mechanism for qualifying received data

bytes according to their positions and values within a data packet; *and a tagging*

*mechanism for applying a multi-bit tag to each received data byte*, such tag

containing information required for further processing of the byte.

Claim 17 is allowable because the prior art fails to teach or disclose a

mechanism for enabling a conditional access module to handle any of a plurality of data

transport streams, comprising: a qualifying mechanism for receiving and qualifying

received data bytes according to their positions and values within a data packet; and *a*

*tagging mechanism for assigning a multi-bit tag to each data byte*, such tag having

a value determined by the results of the qualifying process performed by the qualifying

mechanism.


Claim 18 is allowable because the prior art fails to teach or disclose a method for

handling any of a plurality of data transport streams, comprising: qualifying received

data bytes according to their positions and values; and attaching a tag to *each* qualified

data byte.


Claims 33 and 35 are allowable because the prior art fails to teach or disclose a

digital receiving system, comprising: an input signal channel for receiving a digital

television signal in one of a plurality of digital signal formats;

transmission format converter circuitry for converting the incoming data stream

into a transmission format independent set of digital television signals, the converter

circuitry further comprising a qualifying mechanism for receiving and qualifying *each*

incoming data byte according to its position and value in its plural-byte data packet and

further comprising *a tagging mechanism for assigning a plural-bit tag to each data*

*byte,* the tag having a value determined by the results of a data byte qualifying process

performed by the qualifying mechanism; and

a digital display mechanism for converting the digital television signals into a

visual image, wherein the digital signal receiving channel further comprise signal

processing circuitry for supplying television signals to the display responsive to the

tagged data bytes.


Claims 36 and 38 are allowable because the prior art fails to teach or disclose a

digital receiving system, comprising:

at least two input signal channels for receiving at least first and second digital

signal streams where the first stream carries digital television signals and the second

stream carries digital message signals, wherein each data stream is transmitted in one

of a plurality of different transmission formats;

transmission format converter circuitry for converting the incoming data stream

into a transmission format independent set of signals,

a television display mechanism for converting the format independent television

signals into a visual image;

a message processing mechanism for converting the transmission format

independent message signals into user perceivable message signals;

a first qualifying mechanism for receiving and qualifying incoming television

signal bytes according to their positions and values in their plural-bit data packets;

*a first tagging mechanism for assigning a plural-bit tag to each received*

*television signal byte,* the television tag having a value determined by the results of a

qualifying process performed by the first qualifying mechanism;

first signal processing circuitry for providing television signals to the display

mechanism responsive to the tagged bytes;

a second qualifying mechanism for receiving and qualifying incoming message

signal bytes according to their positions and values in their plural-bit data packets;

*a second tagging mechanism for assigning a plural-bit tag to each received*

*message signal byte,* the message tag having a value determined by the results of a

qualifying process performed by the first qualifying mechanism;

second signal processing circuitry for providing message signals to the display

mechanism responsive to the tagged bytes.


Claim 39 is allowable because the prior art fails to teach or disclose a system for

receiving a plurality of different digital data transport stream formats, comprising: a

qualifying mechanism for receiving and qualifying incoming data bytes according to their

positions and values in their plural-byte data packets; *a tagging mechanism for*

*assigning a plural-bit tag to each data byte,* such tag having a value determined by

the results of the qualifying process performed by the qualifying mechanism, and a

signal processing mechanism responsive to the tagged data bytes for producing digital

information signals.


Claims 40-41 are allowable because the prior art fails to teach or disclose a

mechanism for receiving a plurality of different digital data transport stream formats,

comprising: a qualifying mechanism for receiving and qualifying incoming data bytes

according to their positions and values in their plural-byte data packets, and *a tagging*

*mechanism for assigning a plural-bit tag to each data byte*, such tag having a value

determined by the results of the qualifying process performed by the qualifying

mechanism.


Claim 42 is allowable because the prior art fails to teach or disclose a

mechanism for receiving a plurality of different digital data transport stream formats

wherein the data is conveyed in multi-byte data packets with each packet having a

plural-byte header field and a plural-byte payload field, comprising: a first testing

mechanism for examining *each* incoming data byte and determining whether the byte is

a header byte or a payload byte, *a first tagging mechanism coupled to the first*

*testing mechanism for assigning header byte indicative tags to header field data*

*bytes and payload indicative tags to payload field data bytes,* a second testing

mechanism for examining each incoming data byte and determining whether the data is

scrambled, *a second tagging mechanism coupled to the second testing*

*mechanism for assigning a scramble condition tag bit to each data byte* and giving

such bit one binary value if the data is scrambled and the other binary value if the data

is not scrambled, and signal transfer circuitry for transferring each data byte and it's

assigned tag bits to a data processing mechanism for producing usable digital

information.


A background search found similar prior art, however, not completely as claimed.

For example, Williams et al. (6,157,411) discloses a method to analyze and

convert a plurality of received transport formats into another "sourceless" format.

Williams et al. fails, however, to specifically disclose qualifying received data bytes and

attaching multi-bit tags to each byte.


Temple (EP0880277A2) discloses a receiver which will receive signals in two

formats and perform conversion so one only signal type is output. Temple fails,

however, to disclose qualifying received data bytes and attaching multi-bit tags to each

byte.


Hsing et al. (6,735,310) discloses an encryption system which will qualify and

attach multi-bit tags to each received password. Hsing fails, however, to disclose

attaching tags to each received byte.


### Conclusion

2.      The following are suggested formats for either a Certificate of Mailing or
Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with
all correspondence concerning this application or proceeding to establish a date of
mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in
such communication being considered as timely if the established date is within the
required period for reply. The Certificate should be signed by the individual actually
depositing or transmitting the correspondence or by an individual who, upon information
and belief, expects the correspondence to be mailed or transmitted in the normal course
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Please refer to 37 CFR 1.6(d) and 1.8(a)(2) for filing limitations concerning facsimile transmissions and mailing, respectively.

3.    Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Sheleheda whose telephone number is (703) 305-8722. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (703) 305-4795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

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JS

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